

Claims;

1. An optical module comprising a die pad, at least two platform bodies including a first platform body and a second platform body mounted on the die pad, an optical fiber fixed on the first platform
5 body, and a light emitter mounted on the second platform body and adapted for generating optical signals to be transmitted through the optical fiber.
2. An optical module in accordance with Claim 1, which further
10 comprises a receiving photo-diode mounted on the first platform body and adapted for transforming optical signals received through the optical fiber into electric signals, and a filter provided so that the optical fiber is divided at the position between the receiving
photo-diode and the light emitter. The optical module further
15 comprises a ferrule in which the end portion of the optical fiber is inserted.
3. An optical module in accordance with Claim 1 or 2, which
further comprises a ferrule in which the end portion of the optical fiber
20 is inserted.
4. An optical module in accordance with any one of Claims 1 to 3,
which further comprises a monitoring photo-diode which is mounted
on the second platform body and used for monitoring the luminescence
25 intensity of the light emitter.

5. An optical module in accordance with any one of Claims 1 to 4, which further comprises an encapsulation member which covers at least part of the first platform body and the second platform body and part of the die pad.

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6. An optical module in accordance with Claim 5, wherein the first platform body and the second platform body are arranged on the die pad in parallel with each other.

10 7. An optical module in accordance with Claim 5, wherein the first platform body is placed on the second platform body.

8. An optical module in accordance with any one of Claims 1 to 7, which further comprises silicone gel which covers at least part of the
15 optical fiber, the receiving photo-diode, the light emitter or the filter.

9. An optical module in accordance with any one of Claims 1 to 8, which further comprises at least one IC which receive the output signals from the receiving photo-diode and process the output signals
20 and/or drive the light emitter.

10. An optical module in accordance with Claim 9, wherein the at least one IC may be mounted on the first platform body or the second platform body.

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11. An optical module in accordance with Claim 9, wherein the at

least one IC may be mounted on the die pad.

12. An optical module in accordance with any one of Claims 1 to 11,
which further comprises a plurality of leads at least a part of which is
5 covered by the encapsulation member.

13. An optical module in accordance with Claim 12, wherein the
plurality of leads are drawn out from a package body consisting of the
encapsulation member.

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14. An optical module in accordance with Claim 12, wherein the
plurality of leads terminated at a mounting surface consisting of the
encapsulation member.

15. 15. An optical module in accordance with any one of Claims 1 to 14,
wherein the die pad is located at a side opposite to a mounting surface
of the package body with respect to the platform bodies.

16. An optical module in accordance with any one of Claims 1 to 14,
20 wherein the die pad is provided on a printed circuit board.

17. A method for fabricating an optical module for transmitting and
receiving optical signals comprising a step of mounting on a die pad a
second platform body including at least a light emitter which
25 generates optical signals to be transmitted, a step of mounting on the
die pad or the second platform body a first platform body including at

least optical fibers, a receiving photo-diode that performs photoelectric conversion of an optical signal received through the optical fibers and a filter that separates the optical signal received from the optical signal to be transmitted, and a step of encapsulating the second
5 platform body and the first platform body with an encapsulation member so that end portions of the optical fibers opposite to the light emitter are exposed.

18. A method for fabricating an optical module in accordance with
10 Claim 18, which further comprises a step of mounting the second platform body on the die pad, a step of performing a screening test and mounting the first platform body on the die pad.

19. A method for fabricating an optical module in accordance with
15 Claim 18 or 19, which further comprises a step of applying silicon gel to cover at least part of the optical fiber, the receiving photo-diode, the light emitter or the filter.